

Appl. No.: 10/701,149
Amendment Dated April 13, 2005
Reply to Office Action of January 14, 2005

REMARKS/ARGUMENTS

The specification has been amended to address the objection raised by the Examiner and to insert subheadings. The claims have been amended to more clearly define applicant's invention and to overcome the informalities noted by the Examiner. Favorable reconsideration by the Examiner is requested.

It is an object of the present invention to provide a method and an apparatus for facilitating an automatic production method and for being simultaneously able to minimise both the time that is required for producing a finished product and the materials that are to be used. This object is accomplished by the method defined in independent Claim 1, and the claims dependent therefrom.

Claims 1, 8, 11 and 12 have been rejected as being anticipated by Pedigrew (US Patent No. 4,675,209) and claims 13-15 have been rejected as obvious from the combination of Pedigrew and Erspanner et al. 2002/0013560.

Pedigrew, in Figure 1, shows an applicator head 52, behind which a measuring head 60 is arranged which is followed by a suction head 70. By means of the applicator head 52 an adhesive is applied to a layer material 21. The adhesive is applied to the layer material 21 only in a predefined area, compare Column 2, line 5 *et seq.*, in particular Column 4, line 24 *et seq.* By means of an air jet, which is switched on and off according to a clock frequency (impulse/signal), adhesive is applied to a precisely defined area of the layer material 21. The measuring head 60 is able to determine the precisely defined area 53 and to apply absorbent material to this area 53, compare Column 4, line 35 ff. It is the purpose of the measuring head 60 to stop the release of absorbent material if the precisely defined area 53 is removed from the impact area of measuring head 60. By means of the following suction head 70 any excess particles of the absorbent material which do not adhere to the adhesive area are drawn off, compare Column 4, line 53 *et seq.* It is disclosed in Column 6, line 58 *et seq.* that the measuring head can be designed to provide a single outlet for release of the absorbent material. In this case the absorbent material is applied substantially to the entire width of the layer material 21 in order to obtain the areas 53.5"

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to 53.9", which are arranged side by side next to one another, as illustrated in Figures 7 and 8, as areas coated with absorbent material and separated from one another following the drawing off of any excess absorbent material between and on the side-by-side areas 53.5 to 53.9 which are provided with adhesive.

The present invention is a complete departure from the idea disclosed in Pedigrew, in which a precisely defined adhesive coated area is defined to which absorbent material is applied precisely. The present invention points in a new direction. A powder layer is continuously applied and, subsequently, a portion is removed from this continuously applied powder layer. This enables a manufacturing process of a different kind, as it abandons the idea that a powder material can be applied only to places where it cannot be avoided otherwise. However, according to the invention it is accepted that absorbent material can also get into places from which it has to be removed afterwards. Its removal is, however, ensured in a way that it is still possible to continuously manufacture a laminate in which powder layers are generated which are separated from one another and arranged one after the other.

Pedigrew does not disclose applicant's method, as defined in Claim 1. In particular, Pedigrew does not include any indication as to such a manufacturing method. It is rather repeatedly concerned with the precise application of the adhesive via the applicator head 52 as well as measuring head 60. A different technology is described even with respect to the device disclosed in Figure 4 of Pedigrew, in which the adhesive applied to predefined areas is applied to the absorbent material 86 via layer material 21. The powder layer is not applied by spreading over the layer material 21. Instead, all of the layer material 21 is fully immersed resulting in problems due to the abrasion of adhesive in the absorbent material of the tank. In particular, it cannot be ruled out that adhesive is spread over the layer material 21. In addition, absorbent material may adhere to the top and bottom side of the layer material 21, as it is not applied by spreading. Thus drawing off any excess material 67,67' is necessary.

Should the person skilled in the art aim at developing this teaching any further based on the technical teaching disclosed in Pedigrew US Patent No. 4,675,209, the realization known from Figure 4 will point him in a direction which is not the direction in which the present invention is pointing. The present invention rather uses the advantageous application of the

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powder layer to the first layer in order to provide for subsequent process steps or necessary devices. Accordingly, the invention defined in claim 1 and the claims dependent therefrom is both novel and non-obvious with respect to this prior art.

Claims 1, 2 and 4-12 have also been rejected as anticipated by Heath et al. (US Patent No. 5,494,622), and claims 3 and 13-15 have been rejected as obvious from Heath et al. and Erspanner et al. 2002/0013560.

Heath describes a process for the production of porous laminated products or pouches where a carrier layer 26 is fed from a roller and is sucked into cavities arranged in a roller 42. Then these cavities will be filled with powder material and afterwards a second layer material as covering layer 72 is applied in order to form a sealing of the filled pouches. For supporting the filling of the pouches with powder material an air suction is arranged inside of the roller 42. This air suction serves to deflect all particles of the powder material into the cavities and to hold the powder in these cavities. It is not known from Heath to produce a continuous powder layer, as recited in Claim 1, nor it is known from this prior art document and technical teaching to remove the continuous powder layer partly to generate powder layers which are separated one from another and which are also arranged one after another. The sweeping means described in Col. 8, Line 28-37 are only there to sweep away single particles of the powder material which are laid down on intermediate areas 50 in cross direction between pocket regions 24, see Fig. 8, due to insufficient air suction or eddy influences. The sweeping means are not able to remove material as it is claimed.

Also Heath does not contain any hint for the person skilled in the art how to completely transform the technical teaching of the Heath method and apparatus in order to be able to arrive at the present invention. The general idea of Heath is to fill cavities very precisely with powder material and to prevent any spillage. Therefore, a negative pressure blower is used to direct all powder material into the cavities. This technical teaching directs a person skilled in the art to prevent any apply of powder material in areas which do not need to be covered.

In summary the method of amended claim 1 is both novel and non-obvious with respect to the prior art of record. Reconsideration by the Examiner and formal notification of the allowability of the claims as now presented are solicited.

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It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

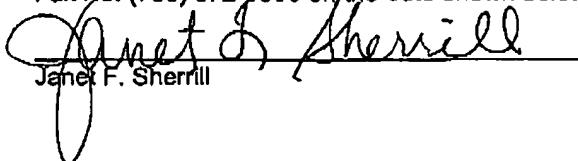


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Janet F. Sherrill

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Date